

A position error correcting, or reducing, method and system used in an image-correlation system which obtains an error function generally reflecting an error occurring over a nominal reference image update length and an error occurring at a first frequency and various other system errors. The error can be compared to a first reference to fit the position error. In various embodiments, parameters of an error function can be varied in fitting the error function to the first reference. The obtained error function can then be used to determine the position error and render more accurate the image correlation system. In one exemplary implementation, the first frequency is related to a pixel pitch and the nominal reference image update length related to the distance between reference image changes is the maximum usable reference image update length.

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